IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-33 (Canceled)

34. (Currently amended) An *in vitro* method for detection of cancer ~~disorders characterized by abnormal cell proliferation~~ in an individual comprising:

a. obtaining a suspected cancerous biological tissue ~~test~~ sample from an individual;

b. contacting said sample with a probe specific for a transketolase like-1 gene nucleic acid sequence, wherein said probe has a sequence that is at least 80% identical to a part of at least 15 consecutive nucleotides of SEQ ID NO:1 or is complementary or reverse complementary to such a part and wherein said probe hybridizes under stringent conditions to SEQ ID NO: 1 but does not hybridise to an other transketolase or transketolase like sequence;

c. obtaining a normal control sample of the same type tissue as as the suspected cancerous biological tissue but known to be non-cancerous and contacting said normal control sample with said probe specific for a transketolase like-1 gene nucleic acid sequence;

d. detecting in said suspected cancerous biological tissue ~~test~~ sample obtained from said individual the level of polynucleotides that hybridized;

e. detecting in said normal control sample the level of polynucleotides that hybridized;

f. comparing said detected level of hybrized polynucleotides from said suspected cancerous biological tissue ~~test~~ sample to the level of hybridized polynucleotides in the normal control sample; and

g. in the case that a higher level of polynucleotides is detected in said suspected cancerous biological tissue ~~test~~ sample as compared to said level of polynucleotides in said normal control sample, diagnosing said individual as having a cancer or precancerous condition ~~at least one~~

~~disorder characterized by abnormal cell proliferation~~.

35. (Canceled)

36. (Previously Presented) The method according to claim 35, wherein the cancer is colon cancer, lung cancer, gastric cancer or pancreatic cancer.

37. (Previously Presented) The method according to claim 34, wherein the biological test sample is a body fluid, a secretion, a smear, a biopsy, a liquid containing cells, lysed cells, cell debris, peptides or nucleic acids.

38. (Previously Presented) The method according to claim 37, wherein the biological test sample is serum, urine, semen, stool, bile, a biopsy or a cell- or tissue-sample.

39 - 44. (Canceled).

45. (Previously Presented) The method according to claim 44, wherein the probe is detectably labeled.

46. (Previously Presented) The method according to claim 45, wherein the label is selected from the group consisting of a radioisotope, a bioluminescent compound, a chemiluminescent compound, a fluorescent compound, a metal chelate, and an enzyme.

47. (Previously Presented) The method according to claim 34, wherein step (d) comprises using a nucleic acid amplification reaction.

48. (Previously Presented) The method according to claim 47, wherein the amplification reaction is selected from the group consisting of PCR, LCR and NASBA.

49. (Previously Presented) The method according to claim 44, wherein step (b) comprises hybridizing the at least one nucleic acid probe in-situ.

50. (Previously Presented) The method according to claim 34, wherein at least one of steps (d) and (f) comprises performing in vitro molecular imaging.

51 - 64. (Canceled)

65. (Previously Presented) The method according to claim 34 wherein SEQ ID NO: 1 is said transketolase like-1 gene of which the level of polynucleotides is detected.

66. (Previously Presented) The method according to claim 36 wherein SEQ ID NO: 1 is the transketolase like-1 gene of which the level of polynucleotides is detected.

67. (Previously Presented) The method according to claim 36, wherein the cancer is colon cancer.

68. (Previously Presented) The method according to claim 66, wherein the cancer is colon cancer.

69. (Previously Presented) The method according to claim 34, wherein said transketolase-like1 gene is as given in SEQ ID No.1 and SEQ ID No. 2.

70. (Previously Presented) The method according to claim 34, wherein said transketolase-like1 gene is as given in NCIB Accession No. X 91817.

71. (New) An *in vitro* method for detection of cancer in an individual comprising:

(a) obtaining a biological tissue sample suspected to contain cancerous cells from an individual;

(b) contacting the tissue sample from step (a) with a probe specific for a transketolase like-1 gene nucleic acid sequence, wherein said probe has a sequence that is at least 80% identical to a part of at least 15 consecutive nucleotides of SEQ ID NO:1 or is complementary or reverse complementary to such a part and wherein said probe hybridizes under stringent conditions to SEQ ID NO: 1 but does not hybridise to an other transketolase or transketolase like sequence;

(c) detecting in said biological tissue sample obtained from said individual the level of polynucleotides that hybridized;

(d) comparing the results of step (c) with a reference value obtained by contacting a normal control sample of the same type as the suspected cancerous biological tissue sample but known

to be non-cancerous with said probe specific for a transketolase like-1 gene nucleic acid sequence and detecting level of hybrized polynucleotides; and

(e) in the case that a higher level of polynucleotides is detected in said suspected cancerous biological tissue sample as compared to said level of polynucleotides in said normal control sample, diagnosing said individual as having a cancer or precancerous condition.

72. (New) An *in vitro* method for detection of cancer in an individual comprising:

(a) obtaining a biological test sample suspected to contain cancerous cells from an individual, said test sample selected from the group consisting of serum, urine, semen, stool, bile, a biopsy or a cell- or tissue-sample;

(b) contacting said biological test sample with a probe specific for a transketolase like-1 gene nucleic acid sequence, wherein said probe has a sequence that is at least 80% identical to a part of at least 15 consecutive nucleotides of SEQ ID NO:1 or is complementary or reverse complementary to such a part and wherein said probe hybridizes under stringent conditions to SEQ ID NO: 1 but does not hybridise to an other transketolase or transketolase like sequence;

(c) detecting in said biological test sample the level of polynucleotides that hybridized;

(d) comparing the results of step (c) with a reference value obtained by contacting a normal control sample of the same type and, in the case of tissue, of the same tissue type, as the suspected cancerous biological test sample but known to be non-cancerous with said probe specific for a transketolase like-1 gene nucleic acid sequence and detecting level of hybrized polynucleotides; and

(e) in the case that a higher level of polynucleotides is detected in said suspected cancerous biological test sample as compared to said level of polynucleotides in said normal control sample, diagnosing said individual as having a cancer or precancerous condition.